

CLAIM OR CLAIMS

1. A load brake for a lift assembly for raising and lowering a load in theatrical and stage environments, the lift assembly having ~~a load brake for a~~ drum rotatable in a winding direction and an unwinding direction, the load brake comprising:

(a) a tensioning axle fixedly connected to the drum, the tensioning axle including braking threads and spaced tensioning threads;

(b) a drive disc mounted about the tensioning axle, the drive disc including a threaded coupling sized to engage the braking threads;

(c) a friction disc mounted about the tensioning axle, intermediate the drive disc and the driven disc; and

(d) a tensioning nut connected to the tensioning threads to selectively vary a maximum distance between the drive disc and the drum.

2. The load brake of Claim 1, further comprising a driven disc connected to the drum for rotation with the drum, wherein the braking threads are selected to urge the driven disc and the drive disc against the friction disc in the winding direction of the drum.

3. The load brake of Claim 1, further comprising a driven disc connected to the drum for rotation with the drum, wherein the braking threads are selected to urge at least one of the driven disc and the drive disc away from the friction disc in the unwinding direction of the drum.

4. The load brake of Claim 1, wherein the friction disc includes a ratchet and further comprising a pawl for engaging the ratchet.

5. The load brake of Claim 4, wherein the pawl engages the ratchet to preclude rotation of the friction disc in the unwinding direction.

6. The load brake of Claim 1, further comprising a driven disc connected to the drum for rotation with the drum, wherein the braking threads are selected to translate the load to urge rotation of the driven disc against the friction disc.

7. A load brake for a lift assembly for raising and lowering a load in theatrical and stage environments, the lift assembly having a drum driven by a motor to rotate the drum in a winding direction and an unwinding direction, the load brake comprising:

(a) a drive disc connected to the motor for rotation with the motor, the drive disc including a threaded coupling;

(b) a driven disc connected to the drum for rotation with the drum;

(c) a tensioning axle including braking threads and tensioning threads;

(d) a friction disc intermediate the drive disc and the driven disc;

the braking threads, the tensioning threads, and the threaded coupling selected to urge the driven disc and the drive disc against the friction disc in the winding direction of the drum.

8. The load brake of Claim 7, the wherein the braking threads are selected to urge at least one of the driven disc and the drive disc away from the friction disc in the unwinding direction of the drum.

9. A load brake for a lift assembly for raising and lowering a load in theatrical and stage environments, the lift assembly having a drum driven by a motor to rotate the drum in a winding direction and an unwinding direction, the lift assembly comprising:

(a) a drive disc connected to the motor for rotation with the motor;

(b) a driven disc connected to the drum for rotation with the drum;

(c) a tensioning axle including braking threads;

(d) a friction disc intermediate the drive disc and the driven disc;

one of the drive disc and the driven disc threadingly coupled to the braking threads to urge the driven disc and the drive disc against the friction disc in the winding direction of the drum.

10. The load brake of Claim 9, the wherein the braking threads are selected to urge at least one of the driven disc and the drive disc away from the friction disc in the unwinding direction of the drum.